

Abstract

A flat no-lead semiconductor die package contains a plurality of studs that protrude from the bottom surface of the capsule and act as electrical contacts, allowing the package to be mounted on a flat surface such as a printed circuit board, while
5 permitting external circuit to be located on the flat surface directly beneath the package. The package may or may not contain a die-attach pad. The die may be mounted flip-chip style on the stud contacts and die-attach pad. A method of fabricating the package includes etching an upper portion of a metal sheet through a mask layer, attaching dice at locations on the surface of the metal sheet, forming a layer of molding compound over
10 the dice, etching the lower portion of the metal sheet through a second mask layer, and separating the packages with a dicing saw or punch tool.